

## INDEX TO VOLUME 140

## Alphabetical Table of Contents of Authors

- ABRAMS, PETER A. Predators that benefit prey and prey that harm predators: unusual effects of interacting foraging adaptations, 573
- ADAMS, W. T., A. R. GRIFFIN, and G. F. MORAN. Using paternity analysis to measure effective pollen dispersal in plant populations, 762
- ADLER, FREDERICK R., and DEBORAH M. GORDON. Information collection and spread by networks of patrolling ants, 373
- AID, CHARLES S. See CARL E. BOCK
- ALERSTAM, THOMAS. See ÅKE LINDSTRÖM
- ANDERSEN, ALAN N. Regulation of "momentary" diversity by dominant species in exceptionally rich ant communities of the Australian seasonal tropics, 401
- ANDERSSON, GUNNAR. See LENNART PERSSON
- ARNOLD, STEVAN J. Constraints on phenotypic evolution, S85
- AYRES, J. M., and T. H. CLUTTON-BROCK. River boundaries and species range size in Amazonian primates, 531
- BAZZAZ, F. A. See E. D. FAJER
- BERTIN, ROBERT I., and PAUL J. PETERS. Paternal effects on offspring quality in *Campsis radicans*, 166
- BOCK, CARL E., ALEXANDER CRUZ, JR., MICHAEL C. GRANT, CHARLES S. AID, and THOMAS R. STRONG. Field experimental evidence for diffuse competition among southwestern riparian birds, 815
- BOLLINGER, ERIC K. See J. TIMOTHY WOOTTON
- BOONSTRA, RUDY. See XUHUA XIA
- BOWERS, M. D. See E. D. FAJER
- BRIGGS, CHERYL J. See WILLIAM W. MURDOCH
- BROCCHIERI, LUCIANO, CARLO MATESSI, and GUGLIELMO MARIN. Inference of pair bonds from capture data based on low variation of the sex ratio among catches, 492
- BURD, MARTIN, and GRAHAM HEAD. Phenological aspects of male and female function in hermaphroditic plants, 305
- BURGER, ALAN E. See RORY P. WILSON
- CARPENTER, STEPHEN R., CLIFFORD E. KRAFT, RUSSELL WRIGHT, XI HE, PATRICIA A. SORANNO, and JAMES R. HODGSON. Resilience and resistance of a lake phosphorus cycle before and after food web manipulation, 781
- CHARLESWORTH, BRIAN. Evolutionary rates in partially self-fertilizing species, 126
- CLUTTON-BROCK, T. H. See J. M. AYRES
- CONDIT, RICHARD, STEPHEN P. HUBBELL, and ROBIN B. FOSTER. Recruitment near conspecific adults and the maintenance of tree and shrub diversity in a Neotropical forest, 261
- COPPOCK, D. LAYNE. See ELISABETH A. HOLLAND
- COYNE, JERRY A. See H. ALLEN ORR
- CRAWLEY, M. J. See S. W. PACALA
- CRUZ, ALEXANDER, JR. See CARL E. BOCK
- DETILING, JAMES K. See ELISABETH A. HOLLAND
- DIEHL, SEBASTIAN. See LENNART PERSSON
- DOBSON, F. STEPHEN. Body mass, structural size, and life-history patterns of the Columbian ground squirrel, 109
- EADIE, JOHN M., and JOHN M. FRYXELL. Density dependence, frequency dependence, and alternative nesting strategies in goldeneyes, 621
- FAJER, E. D., M. D. BOWERS, and F. A. BAZZAZ. The effect of nutrients and enriched CO<sub>2</sub> environments on produc-

- tion of carbon-based allelochemicals in *Plantago*: a test of the carbon/nutrient balance hypothesis, 707
- FORSGREN, ELISABET. Predation risk affects male choice in a gobiid fish, 1041
- FOSTER, ROBIN B. See RICHARD CONDIT
- FRYXELL, JOHN M. See JOHN M. EADIE
- GANESHAIAH, K. N. See R. LOKESHA
- GARLAND, THEODORE, JR. Rate tests for phenotypic evolution using phylogenetically independent contrasts, 509
- GASS, CLIFTON LEE, and W. MARK ROBERTS. The problem of temporal scale in optimization: three contrasting views of hummingbird visits to flowers, 829
- GASTREICH, KARIN R. See JOAN E. STRASSMANN
- GODFRAY, H. C. J., and S. W. PACALA. Aggregation and the population dynamics of parasitoids and predators, 30
- GOODNIGHT, CHARLES J., JAMES M. SCHWARTZ, and LORI STEVENS. Contextual analysis of models of group selection, soft selection, hard selection, and the evolution of altruism, 743
- GOODNIGHT, KEITH F. The effect of stochastic variation on kin selection in a budding-viscous population, 1028
- GORDON, DEBORAH M. See FREDERICK R. ADLER
- GRANT, MICHAEL C. See CARL E. BOCK
- GRIFFIN, A. R. See W. T. ADAMS
- GUREVITCH, JESSICA, LAURA L. MORROW, ALISON WALLACE, and JOSEPH S. WALSH. A meta-analysis of competition in field experiments, 539
- GURNEY, WILLIAM S. C. See WILLIAM W. MURDOCH
- GUSTAFSSON, LARS. See TOMAS PÄRT
- HAMRIN, STELLAN F. See LENNART PERSSON
- HE, XI. See STEPHEN R. CARPENTER
- HEAD, GRAHAM. See MARTIN BURD
- HEGDE, S. G. See R. LOKESHA
- HERRERA, CARLOS M. Historical effects and sorting processes as explanations for contemporary ecological patterns: character syndromes in Mediterranean woody plants, 421
- HESSEN, DAG O. Nutrient element limitation of zooplankton production, 799
- HOBBS, N. THOMPSON. See DONALD E. SPALINGER
- HOCKEY, PHILIP A. R., RENE A. NAVARRO, BOZENA KALEJTA, and CLAUDIO R. VELASQUEZ. The riddle of the sands: why are shorebird densities so high in southern estuaries? 961
- HODGSON, JAMES R. See STEPHEN R. CARPENTER
- HOLLAND, ELISABETH A., WILLIAM J. PARTON, JAMES K. DETLING, and D. LAYNE COPPOCK. Physiological responses of plant populations to herbivory and their consequences for ecosystem nutrient flow, 685
- HOLT, ROBERT D. See MARK A. MCPEEK
- HUBBELL, STEPHEN P. See RICHARD CONDIT
- HUGHES, COLIN R. See JOAN E. STRASSMANN
- HUNTLEY, MARK E., and MAI D. G. LOPEZ. Temperature-dependent production of marine copepods: a global synthesis, 201
- HUSTLER, KIT. See RORY P. WILSON
- INMAN, ALASTAIR J. See JOHN R. KREBS
- IVES, ANTHONY R. Continuous-time models of host-parasitoid interactions, 1
- . Density-dependent and density-independent parasitoid aggregation in model host-parasitoid systems, 912
- JOHANSSON, LARS. See LENNART PERSSON
- JORDAN, NICHOLAS. Path analysis of local adaptation in two ecotypes of the annual plant *Diodia teres* Walt. (Rubiaceae), 149
- KALEJTA, BOZENA. See PHILIP A. R. HOCKEY
- KETTERSON, ELLEN D., and VAL NOLAN JR. Hormones and life histories: an integrative approach, S33
- KETTERSON, ELLEN D., VAL NOLAN JR., LICIA WOLF, and CHARLES ZIEGENFUS. Testosterone and avian life histories: effects of experimentally elevated testosterone on behavior and correlates of fitness in the dark-eyed junco (*Junco hyemalis*), 980
- KLINGENBERG, CHRISTIAN PETER, and MANFRED ZIMMERMANN. Static, ontogenetic, and evolutionary allometry: a multivariate comparison in nine species of water striders, 601

- KRAFT, CLIFFORD E. See STEPHEN R. CARPENTER
- KREBS, JOHN R., and ALASTAIR J. INMAN. Learning and foraging: individuals, groups, and populations, S63
- LAFFERTY, KEVIN D. Foraging on prey that are modified by parasites, 854
- LEVEY, DOUGLAS J., and F. GARY STILES. Evolutionary precursors of long-distance migration: resource availability and movement patterns in Neotropical landbirds, 447
- LINDSTRÖM, ÅKE, and THOMAS ALERSTAM. Optimal fat loads in migrating birds: a test of the time-minimization hypothesis, 477
- LOKESHA, R., S. G. HEGDE, R. UMA SHAANKER, and K. N. GANESHAIAH. Dispersal mode as a selective force in shaping the chemical composition of seeds, 520
- LOPEZ, MAI D. G. See MARK E. HUNTLEY
- LUNDBERG, PETER A. See LAURI OKSANEN
- MARIN, GUGLIELMO. See LUCIANO BROCCIERI
- MATESSI, CARLO. See LUCIANO BROCCIERI
- MCPHEE, MARK A., and ROBERT D. HOLT. The evolution of dispersal in spatially and temporally varying environments, 1010
- MCPHAIL, JOHN DONALD. See DOLPH SCHLUTER
- MOEN, JON. See LAURI OKSANEN
- MORAN, G. F. See W. T. ADAMS
- MORENO, JUAN. See TOMAS PÄRT
- MORROW, LAURA L. See JESSICA GUREVITCH
- MURDOCH, WILLIAM W., CHERYL J. BRIGGS, ROGER M. NISBET, WILLIAM S. C. GURNEY, and ALLAN STEWART-OATEN. Aggregation and stability in metapopulation models, 41
- NAVARRO, RENE A. See PHILIP A. R. HOCKEY
- NISBET, ROGER M. See WILLIAM W. MURDOCH
- NOLAN, VAL, JR. See ELLEN D. KETTERSON
- NÖLDEKE, E. CHRISTIAN. See RORY P. WILSON
- OAKES, E. J. Lekking and the evolution of sexual dimorphism in birds: comparative approaches, 665
- OKSANEN, LAURI, JON MOEN, and PETER A. LUNDBERG. The time-scale problem in exploiter-victim models: does the solution lie in ratio-dependent exploitation? 938
- ORR, H. ALLEN, and JERRY A. COYNE. The genetics of adaptation: a reassessment, 725
- PACALA, S. W. See H. C. J. GODFRAY
- PACALA, S. W., and M. J. CRAWLEY. Herbivores and plant diversity, 243
- PÄRT, TOMAS, LARS GUSTAFSSON, and JUAN MORENO. "Terminal investment" and a sexual conflict in the collared flycatcher (*Ficedula albicollis*), 868
- PARTON, WILLIAM J. See ELISABETH A. HOLLAND
- PERSSON, LENNART, SEBASTIAN DIEHL, LARS JOHANSSON, GUNNAR ANDERSSON, and STELLAN F. HAMRIN. Trophic interactions in temperate lake ecosystems: a test of food chain theory, 59
- PETERS, PAUL J. See ROBERT I. BERTIN
- PRUETT-JONES, STEPHEN. Independent versus nonindependent mate choice: do females copy each other? 1000
- QUELLER, DAVID C. See JOAN E. STRASSMANN
- REAL, LESLIE A. Information processing and the evolutionary ecology of cognitive architecture, S108
- . Introduction to the symposium, S1
- RIESSEN, HOWARD P. Cost-benefit model for the induction of an antipredator defense, 349
- ROBERTS, W. MARK. See CLIFTON LEE GASS
- RYAN, PETER G. See RORY P. WILSON
- SCHLUTER, DOLPH, and JOHN DONALD MCPHAIL. Ecological character displacement and speciation in sticklebacks, 85
- SCHUPP, EUGENE W. The Janzen-Connell model for tropical tree diversity: population implications and the importance of spatial scale, 526
- SCHWARTZ, JAMES M. See CHARLES J. GOODNIGHT
- SINGER, M. C., and C. D. THOMAS. The difficulty of deducing behavior from resource use: an example from hill-topping in checkerspot butterflies, 654

- SORANNO, PATRICIA A. See STEPHEN R. CARPENTER
- SPALINGER, DONALD E., and N. THOMPSON HOBBS. Mechanisms of foraging in mammalian herbivores: new models of functional response, 325
- STEVENS, GEORGE C. The elevational gradient in altitudinal range: an extension of Rapoport's latitudinal rule to altitude, 893
- STEVENS, LORI. See CHARLES J. GOODNIGHT
- STEVENS, LORI, and DONALD T. WICKLOW. Multispecies interactions affect cytoplasmic incompatibility in *Tribolium* flour beetles, 642
- STEWART-OATEN, ALLAN. See WILLIAM W. MURDOCH
- STILES, F. GARY. See DOUGLAS J. LEVEY
- STRASSMANN, JOAN E., KARIN R. GASTREICH, DAVID C. QUELLER, and COLIN R. HUGHES. Demographic and genetic evidence for cyclical changes in queen number in a Neotropical wasp, *Polybia emaciata*, 363
- STRONG, THOMAS R. See CARL E. BOCK
- THOMAS, C. D. See M. C. SINGER
- UMA SHAANKER, R. See R. LOKESHA
- VELASQUEZ, CLAUDIO R. See PHILIP A. R. HOCKEY
- VENABLE, D. LAWRENCE. Size-number trade-offs and the variation of seed size with plant resource status, 287
- WALLACE, ALISON. See JESSICA GUREVITCH
- WALSH, JOSEPH S. See JESSICA GUREVITCH
- WERNER, EARL E. Individual behavior and higher-order species interactions, S5
- WICKLOW, DONALD T. See LORI STEVENS
- WILSON, RORY P., KIT HUSTLER, PETER G. RYAN, ALAN E. BURGER, and E. CHRISTIAN NÖLDEKE. Diving birds in cold water: do Archimedes and Boyle determine energetic costs? 179
- WOLF, LICIA. See ELLEN D. KETTERSON
- WOOTTON, J. TIMOTHY, and ERIC K. BOLLINGER. Bobolink polygyny in a homogeneous habitat: a test of the asynchronous settlement model, 1050
- WRIGHT, RUSSELL. See STEPHEN R. CARPENTER
- XIA, XUHUA, and RUDY BOONSTRA. Measuring temporal variability of population density: a critique, 883
- ZIEGENFUS, CHARLES. See ELLEN D. KETTERSON
- ZIMMERMANN, MANFRED. See CHRISTIAN PETER KLINGENBERG

### Alphabetical Table of Contents of Titles

- Aggregation and stability in metapopulation models. William W. Murdoch, Cheryl J. Briggs, Roger M. Nisbet, William S. C. Gurney, and Allan Stewart-Oaten, 41
- Aggregation and the population dynamics of parasitoids and predators. H. C. J. Godfray and S. W. Pacala, 30
- Bobolink polygyny in a homogeneous habitat: a test of the asynchronous settlement model. J. Timothy Wootton and Eric K. Bollinger, 1050
- Body mass, structural size, and life-history patterns of the Columbian ground squirrel. F. Stephen Dobson, 109
- Constraints on phenotypic evolution. Stevan J. Arnold, S85
- Contextual analysis of models of group selection, soft selection, hard selection, and the evolution of altruism. Charles J. Goodnight, James M. Schwartz, and Lori Stevens, 743
- Continuous-time models of host-parasitoid interactions. Anthony R. Ives, 1
- Cost-benefit model for the induction of an antipredator defense. Howard P. Rieser, 349
- Demographic and genetic evidence for cyclical changes in queen number in a Neotropical wasp, *Polybia emaciata*. Joan E. Strassmann, Karin R. Gastreich, David C. Queller, and Colin R. Hughes, 363

- Density dependence, frequency dependence, and alternative nesting strategies in goldeneyes. John M. Eadie and John M. Fryxell, 621
- Density-dependent and density-independent parasitoid aggregation in model host-parasitoid systems. Anthony R. Ives, 912
- The difficulty of deducing behavior from resource use: an example from hill-topping in checkerspot butterflies. M. C. Singer and C. D. Thomas, 654
- Dispersal mode as a selective force in shaping the chemical composition of seeds. R. Lokesh, S. G. Hegde, R. Uma Schaanker, and K. N. Ganeshiah, 520
- Diving birds in cold water: do Archimedes and Boyle determine energetic costs? Rory P. Wilson, Kit Hustler, Peter G. Ryan, Alan E. Burger, and E. Christian Nöldeke, 179
- Ecological character displacement and speciation in sticklebacks. Dolph Schluter and John Donald McPhail, 85
- The effect of nutrients and enriched CO<sub>2</sub> environments on production of carbon-based allelochemicals in *Plantago*: a test of the carbon/nutrient balance hypothesis. E. D. Fajer, M. D. Bowers, and F. A. Bazzaz, 707
- The effect of stochastic variation on kin selection in a budding-viscous population. Keith F. Goodnight, 1028
- The elevational gradient in altitudinal range: an extension of Rapoport's latitudinal rule to altitude. George C. Stevens, 893
- The evolution of dispersal in spatially and temporally varying environments. Mark A. McPeck and Robert D. Holt, 1010
- Evolutionary precursors of long-distance migration: resource availability and movement patterns in Neotropical landbirds. Douglas J. Levey and F. Gary Stiles, 447
- Evolutionary rates in partially self-fertilizing species. Brian Charlesworth, 126
- Field experimental evidence for diffuse competition among southwestern riparian birds. Carl E. Bock, Alexander Cruz, Jr., Michael C. Grant, Charles S. Aid, and Thomas R. Strong, 815
- Foraging on prey that are modified by parasites. Kevin D. Lafferty, 854
- The genetics of adaptation: a reassessment. H. Allen Orr and Jerry A. Coyne, 725
- Herbivores and plant diversity. S. W. Pataca and M. J. Crawley, 243
- Historical effects and sorting processes as explanations for contemporary ecological patterns: character syndromes in Mediterranean woody plants. Carlos M. Herrera, 421
- Hormones and life histories: an integrative approach. Ellen D. Ketterson and Val Nolan Jr., S33
- Independent versus nonindependent mate choice: do females copy each other? Stephen Pruett-Jones, 1000
- Individual behavior and higher-order species interactions. Earl E. Werner, S5
- Inference of pair bonds from capture data based on low variation of the sex ratio among catches. Luciano Brocchieri, Carlo Matessi, and Guglielmo Marin, 492
- Information collection and spread by networks of patrolling ants. Frederick R. Adler and Deborah M. Gordon, 373
- Information processing and the evolutionary ecology of cognitive architecture. Leslie A. Real, S108
- Introduction to the symposium. Leslie A. Real, S1
- The Janzen-Connell model for tropical tree diversity: population implications and the importance of spatial scale. Eugene W. Schupp, 526
- Learning and foraging: individuals, groups, and populations. John R. Krebs and Alastair J. Inman, S63
- Lekking and the evolution of sexual dimorphism in birds: comparative approaches. E. J. Oakes, 665
- Measuring temporal variability of population density: a critique. Xuhua Xia and Rudy Boonstra, 883
- Mechanisms of foraging in mammalian her-

- bivores: new models of functional response. Donald E. Spalinger and N. Thompson Hobbs, 325
- A meta-analysis of competition in field experiments. Jessica Gurevitch, Laura L. Morrow, Alison Wallace, and Joseph S. Walsh, 539
- Multispecies interactions affect cytoplasmic incompatibility in *Tribolium* flour beetles. Lori Stevens and Donald T. Wicklow, 642
- Nutrient element limitation of zooplankton production. Dag O. Hessen, 799
- Optimal fat loads in migrating birds: a test of the time-minimization hypothesis. Åke Lindström and Thomas Ålerstam, 477
- Paternal effects on offspring quality in *Campsis radicans*. Robert I. Bertin and Paul J. Peters, 166
- Path analysis of local adaptation in two ecotypes of the annual plant *Diodia teres* Walt. (Rubiaceae). Nicholas Jordan, 149
- Phenological aspects of male and female function in hermaphroditic plants. Martin Burd and Graham Head, 305
- Physiological responses of plant populations to herbivory and their consequences for ecosystem nutrient flow. Elisabeth A. Holland, William J. Parton, James K. Detling, and D. Layne Coppock, 685
- Predation risk affects mate choice in a gobiid fish. Elisabet Forsgren, 1041
- Predators that benefit prey and prey that harm predators: unusual effects of interacting foraging adaptations. Peter A. Abrams, 573
- The problem of temporal scale in optimization: three contrasting views of hummingbird visits to flowers. Clifton Lee Gass and W. Mark Roberts, 829
- Rate tests for phenotypic evolution using phylogenetically independent contrasts. Theodore Garland, Jr., 509
- Recruitment near conspecific adults and the maintenance of tree and shrub diversity in a Neotropical forest. Richard Condit, Stephen P. Hubbell, and Robin B. Foster, 261
- Regulation of "momentary" diversity by dominant species in exceptionally rich ant communities of the Australian seasonal tropics. Alan N. Andersen, 401
- Resilience and resistance of a lake phosphorus cycle before and after food web manipulation. Stephen R. Carpenter, Clifford E. Kraft, Russell Wright, Xi He, Patricia A. Soranno, and James R. Hodgson, 781
- The riddle of the sands: why are shorebird densities so high in southern estuaries? Philip A. R. Hockey, Rene A. Navarro, Bozena Kalejta, and Claudio R. Velasquez, 961
- River boundaries and species range size in Amazonian primates. J. M. Ayres and T. H. Clutton-Brock, 531
- Size-number trade-offs and the variation of seed size with plant resource status. D. Lawrence Venable, 287
- Static, ontogenetic, and evolutionary allometry: a multivariate comparison in nine species of water striders. Christian Peter Klingenberg and Manfred Zimmermann, 601
- Temperature-dependent production of marine copepods: a global synthesis. Mark E. Huntley and Mai D. G. Lopez, 201
- "Terminal investment" and a sexual conflict in the collared flycatcher (*Ficedula albicollis*). Tomas Pärt, Lars Gustafsson, and Juan Moreno, 868
- Testosterone and avian life histories: effects of experimentally elevated testosterone on behavior and correlates of fitness in the dark-eyed junco (*Junco hyemalis*). Ellen D. Ketterson, Val Nolan Jr., Licia Wolf, and Charles Ziegenfuss, 980
- The time-scale problem in exploiter-victim models: does the solution lie in ratio-dependent exploitation? Lauri Oksanen, Jon Moen, and Peter A. Lundberg, 938
- Trophic interactions in temperate lake ecosystems: a test of food chain theory. Lennart Persson, Sebastian Diehl, Lars Johansson, Gunnar Andersson, and Stellan F. Hamrin, 59



- Using paternity analysis to measure effective pollen dispersal in plant populations. W. T. Adams, A. R. Griffin, and G. F. Moran, 762

## Alphabetical Table of Keywords

- actinomycetes, 642  
 activity level, S5  
 adaptation, 573, 725  
 adaptive radiation, 85  
 aerobic dive limit, 179  
 age effects, 868  
 aggregation, 30, 41  
 Alberta, 109  
 allelochemical variation, 707  
 allozymes, 762  
 alternative hypothesis, 1050  
 altitude, 893  
 altruism, 743  
 animal behavior, S1  
 ant communities, 373, 401  
 Arizona, 815
- bearded tit, 492  
 behavior, S5, 854  
 behavioral ecology, S1  
 behavioral mechanisms, S1  
 biodiversity, 893  
 biomass patterns, 938  
 birds, 815  
 body mass, 109  
 bootstrap estimation, 762  
 boundaries, 531  
 breeding systems, 1050  
 brood parasitism, 621  
 buoyancy, 179  
 butterfly, 654
- Campsis radicans*, 166  
 capture data, 492  
 carbon, 799  
 carbon allocation, 685  
 carbon/nutrient balance hypothesis, 707  
*Chaoborus*, 349  
 character displacement, 85  
 character syndromes, 421  
 choice behavior, S108  
 chromosomal rearrangements, 126  
 cognitive architecture, S1  
 collared flycatcher, 868  
 common principal components, 601  
 comparative method, 509, 665
- competition, 243, 401, 539  
 computer simulation, 762  
 contextual analysis, 743  
 copepods, 201  
 copying behavior, 1000  
 cost-benefit model, 349  
 covariance structure, 601  
 cycle, 883  
 cytoplasmic incompatibility, 642
- Daphnia pulex*, 349  
 decision making, S108  
 density, 883  
 density-dependent selection, 621  
 developmental constraints, S85  
 disc equation, 325  
 dispersal, 1010  
 dispersal modes, 520  
 distribution, 531, 961  
 diversity, 243  
 diving birds, 179  
*Dolichonyx oryzivorus*, 1050  
 dominance, 126  
 dominant species, 401
- ecological genetics, 149  
 ecology, 539  
 ecotypes, 149  
 elevational gradients, 893  
 encounter rate, 325  
 energy, 179  
 environmental favorability, 401  
 environmental tracking, S63  
*Eucalyptus regnans*, 762  
 evolution of migration, 447  
 evolutionarily stable strategy (ESS), 621  
 evolutionary constraints, S85  
 evolutionary ecology, S1
- fat deposition, 477  
 fat storage, 520  
 feathers, 179  
 female choice, 1000, 1050  
 female copying, 1000  
 field experiments, 539  
 food, 201

- food chain, 59, 573
- food web, 781
- foraging behavior, 325, 373, 573, S63, S108, 854
- frequency-dependent selection, 621
- frugivorous birds, 447
- fruit abortion, 166
- functional constraints, S85
- functional morphology, 509
- functional response, 325
- fungi, 642
  
- genetic constraints, S85
- Gerridae, 601
- group selection, 743
- growth, 201
  
- habitat choice, S5
- habitat heterogeneity, 59
- handling time, 325
- hard selection, 743
- herbivory, 243, 685, 938
- heterogeneity, 243
- hilltopping, 654
- historical effects, 421
- host-parasitoid models, 1, 912
- hummingbirds, 829
  
- indirect effects, 573
- induction, 349
- information processing, S108
- interference, 401
- interspecific competition, 815
- iridoid glycosides, 707
  
- Janzen-Connell hypothesis, 261, 526
- Junco hyemalis*, S33, 980
- juvenile pairing, 492
  
- kin selection, 1028
  
- lake, 781
- latitude, 893, 961
- learning, S63
- lekking birds, 665
- life history, 109, 421, S85
- life tables, 349
- likelihood, 762
- limitation, 799
- locomotion, 509
  
- macromutation, 725
- mate choice, 980, 1041
- maternal choice, 166
- mating systems, S33
  
- Mediterranean plants, 421
- meta-analysis, 539
- metapopulation, 41
- micromutation, 725
- migrant birds, 447, 477
- migration patterns, 447
- migration speed, 477
- mist nets, 492
- model, 854
- molecular evolution, 126
- morphometrics, 601
- multispecies interactions, 642
- multivariate allometry, 601
  
- natural selection, 126, 149
- nectar intake, 829
- nectarivorous birds, 447
- Neotropics, 261
- nest boxes, 815
- nitrogen allocation, 685
- nitrogen cycling, 685
- nutrient cycle, 781
  
- offspring size, 287
- ontogeny, S5
- opportunity cost, 305
- optimal foraging, 573
- optimality models, S63
- optimization, 477, 829
  
- pair bond, 492
- parasites, 854
- parasitism, 912
- parasitoid, 30, 41
- parasitoid aggregation, 1, 912
- parental behavior, 980
- paternal effects, 166
- path analysis, 149
- patrolling, 373
- phenology, 305
- phenotypic engineering, S33, 980
- phenotypic plasticity, 1010
- phosphorus, 799
- phylogeny, 509
- physiological condition, 109
- Plantago lanceolata*, 707
- polymorphism, 1010
- Pomatoschistus minutus*, 1041
- population, 883
- population dynamics, 1, 30, 41
- population ecology, 685
- population regulation, 526
- predation, 349, 573, S5, 854, 938, 961
- predation risk, 1041
- predator, 30, 41



- predator-prey models, 938  
preference, 654  
prey, 41  
primates, 531  
production, 201, 961  
productivity, 59
- quantitative genetics, S85  
queen number, 363
- random settlement, 1050  
Rapoport's rule, 893  
rate tests, 509  
recessivity, 126  
reciprocal transplant, 149  
recruitment, 261  
relatedness, 363, 1028  
reproductive ecology, 305  
reproductive effort, 868  
reproductive strategy, 621  
resilience, 781  
resistance, 781  
resource status, 287  
resource use, 654  
riparian, 815  
risk-sensitive foraging, S108
- searching time, 325  
seed chemical composition, 520  
seed predation, 526  
seedling performance, 166  
selection, 743, 1010  
self-fertilization, 126  
sexual allocation, 305  
sexual conflict, 868  
sexual selection, 980, 1000  
sib interactions, 287  
size dimorphism, 665  
size-number models, 287  
size structure, 59  
social organization, S33  
social wasps, 363  
sociality, 363
- sociobiology, 363  
soft selection, 743  
South America, 531  
spatial models, 373  
speciation, 85  
species diversity, 261, 401, 526  
species range, 531  
species richness, 893  
*Spermophilus*, 109  
stability, 30, 912  
stabilizing forces, 526  
sticklebacks, 85  
stoichiometry, 799  
stopover, 477  
storage costs, 520  
structural size, 109  
systematics, 509
- temperate lakes, 59  
temperature, 201  
terminal investment, 868  
testosterone, S33, 980  
time scale, 829, 938  
trade-offs, 287, S5, S33  
*Tribolium confusum*, 642  
trophic cascade, 781  
trophic interactions, 59  
trophic level, 539  
tropical trees, 526
- upthrust, 179
- variability, 883  
variable environments, 1010  
verbascoside, 707  
Vespidae, 363  
viscosity, 1028
- waders, 961  
waterfowl, 621  
wetlands, 961
- zooplankton, 799